



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,692	06/21/2001	Sven Harder	59597.000002	3195

30593 7590 05/06/2003

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 8910
RESTON, VA 20195

EXAMINER

WATKINS III, WILLIAM P

ART UNIT	PAPER NUMBER
----------	--------------

1772

DATE MAILED: 05/06/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/868,692

Applicant(s)

HARDER, SVEN

Examiner

William P. Watkins III

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 05. 6) ☒ Other: *PTO-Translation 03-0798*.

Art Unit: 1772

DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Korsgaard (WO 85/00188) in view of Kunzel (WO 96/33321, PTO Translation 03-0798).

Korsgaard teaches teaches a three layer vapor control laminate with perforations that functions by condensation of water (abstract). Kunzel teaches the use a vapor barrier whose transmission varies with relative humidity (abstract). The instant invention claims a three layer vapor barrier that has a humidity variable transmission. It would have been obvious to one of ordinary skill in the art to have used a variable transmission layer as part of laminate of Korsgaard in order to have a broader range of transmission abilities because of the teachings of Kunzel.

Art Unit: 1772

3. Applicant's arguments filed 20 February 2003 have been fully considered but they are not persuasive.

Applicant argues that there is no teaching in Korsgaard that would provide motivation for one of ordinary skill in the art to look to the teachings of Kunzel et al for a teaching of a vapor barrier with a variable rate moisture diffusion and that there is no suggestion of combination of the vapor barrier layer with other layers in Kunzel. Taking the last point first, Kunzel teaches that the variable rate barrier layer of Kunzel may be on a cellulose fiber substrate such as paper or a perforated polyethylene foil or joined with two outer layers in a three-layer laminate (page 6 of the translation). There is thus an expectation of success when joining the variable rate layer of Kunzel to other layers.

Regarding motivation the examiner notes that both membrane systems attempt to solve similar problems. Both references are drawn to vapor barriers that are placed on the side of an insulation layer that is closest to the inside of a building and on the opposite side of the insulation from the outer surface of the roof. Both references attempt to limit the flow of water vapor from the inside of the building to the outside when the temperature inside is higher than the outside and relative humidity is low (winter). Korsgaard teaches doing this by using

Art Unit: 1772

temperature inside is higher than the outside and relative humidity is low (winter). Korsgaard teaches doing this by using two vapor impermeable layers with staggered perforations that have a constant low diffusion rate. Kunzel teaches doing this by using a membrane where the diffusion rate is low with low relative humidity. Both references teach removal of water and water vapor from the insulation to the inside of the building when the relative humidity is high and the inside temperature lower than the outside temperature (summer). Korsgaard teaches doing this by providing an absorption layer to hold moisture that condenses on the vapor barrier laminate until the constant diffusion rate allows transport to the inside of the building. Kunzel teaches doing this by providing a higher diffusion rate during high humidity conditions. As noted in the above rejection there is motivation to provide variable rate diffusion layers in the laminate of Korsgaard in order to allow higher rates of vapor transport from the center absorption layer of Korsgaard to the inside of the house during high humidity conditions while still preventing transport away from the inside of the building during low humidity conditions.

Lastly applicant argues that if properly combined, the combination of the references would teach a variable rate layer

Art Unit: 1772

first and second water impervious membranes. The membrane of Kunzel is water impervious but has the ability to transport water vapor by diffusion. This type of layer meets the instant claim language for the claimed first and second membranes.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references show various vapor barrier membrane systems that allow some water vapor transport.

Art Unit: 1772

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Watkins III whose telephone number is 703-308-2420. The examiner works an increased flex time schedule, but can normally be reached Monday through Friday, 11:30 A.M. through 8:00 P.M. Eastern Time. The examiner returns all calls within one business day unless an extended absence is noted on his voice mail greeting.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 703-308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.



WW/ww

May 1, 2003

**WILLIAM P. WATKINS III
PRIMARY EXAMINER**